

## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### LISTING OF CLAIMS:

1. (Currently Amended) A cryptographic method, ~~during which an integer division of a type  $q = a \div b$  and/or a modular reduction of a type  $r = a \bmod b$  is performed, where  $q$  is a quotient,  $a$  is a number containing  $m$  bits,  $b$  is a number containing  $n$  bits, with  $n$  less than or equal to  $m$  and  $b_{n-1}$  is non-zero,  $b_{n-1}$  being the most significant bit of the number  $b$ ,~~ comprising the steps of:

performing an integer division of a type  $q = a \div b$  and/or a modular reduction of a type  $r = a \bmod b$  by a processor, where  $q$  is a quotient,  $a$  is a number containing  $m$  bits,  $b$  is a number containing  $n$  bits, with  $n$  less than or equal to  $m$  and  $b_{n-1}$  is non-zero,  $b_{n-1}$  being the most significant bit of the number  $b$ ;

masking the number  $a$  by a random number  $p$  by the processor before performing the integer division and/or the modular reduction $[[,]]$  ;

taking away the contribution made by the random number  $p$  from the result of the integer division after having performed the integer division; and

generating encrypted or decrypted data by the processor in accordance with a result of the division and/or modular reduction.

2. (Previously Presented) A method according to claim 1, wherein, in order to mask the number  $a$ ,  $b$  times the random number  $p$  ( $a \leftarrow a + b * p$ ) is added to the number  $a$ .

3. (Canceled)
4. (Currently Amended) A method according to claim ~~[[3]]~~ 1, wherein, in order to take away the contribution made by the random number  $p$ , said random number  $p$  is subtracted from the result of the integer division.
5. (Previously Presented) A method according to claim 1, wherein the random number  $p$  is modified at each implementation of the method.
6. (Previously Presented) A method according to claim 1, wherein the random number  $p$  is modified after a predetermined number of implementations of the method.
7. (Previously Presented) An electronic component comprising means for implementing a method according to claim 1, said means comprising a plurality of registers for storing the numbers  $a$  and  $b$ .
8. (Previously Presented) A chip card comprising a component according to claim 7.